IN THE CLAIMS

Please replace the claims as filed with the claims set forth below. This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-2. (Cancelled)

3. (Previously Presented) The drug conjugate of claim 28, wherein the compound is adapted to be transported by a PepT1 protein or a PepT2 protein.

Claims 4-5. (Cancelled)

6. (Withdrawn) The drug conjugate of claim 28, wherein the compound comprises a serine, aspartate or glutamate residue as the C-terminal residue.

Claims 7-9. (Cancelled)

10. (Withdrawn) The drug conjugate of claim 28, wherein the functional group of R^4 includes amine; amide; ester; acid; carboxylic acid; alcohol; ether; thiol; thioether; and aryl, or aromatic compound.

Claim 11. (Cancelled)

12. (Withdrawn) The drug conjugate of claim 28, wherein R^4 comprises an alcohol or a carboxylic acid group.

13. (Withdrawn) The drug conjugate of claim 28, wherein R^4 comprises an alkyl chain attached to an alcohol or a carboxylic acid group.

14. (Withdrawn) The drug conjugate of claim 13, wherein the alkyl group or alkyl chain comprises a C_1-C_{20} chain.

15. (Withdrawn) The drug conjugate of claim 28, wherein R^4 is an amino acid side chain group comprising an alcohol or a carboxylic acid group.

16. (Withdrawn) The drug conjugate of claim 28, wherein R^4 is a side chain group of any amino acid residue.

17. (Withdrawn) The drug conjugate of claim 28, wherein R^4 is a side chain group of an amino acid independently selected from a group consisting of serine; threonine; glutamic acid; aspartic acid; and tyrosine.

18. (Withdrawn) The drug conjugate of claim 28, wherein R^4 is a side chain group of serine; glutamic acid; or aspartic acid.

19. (Previously Presented) The drug conjugate of claim 28, wherein R^4 comprises a spacer which is constructed and arranged to distance the drug from the thiopeptide when bound thereto.

20. (Previously Presented) The drug conjugate of claim 19, wherein the spacer comprises an alkyl chain, or an alkyl chain incorporating ether, amino, ester, amide or carbonyl groups, with a terminal group for attachment to the thiopeptide compound and the drug.

21. (Previously Presented) The drug conjugate of claim 19, wherein the spacer comprises $[-CH_2-]_n$, wherein the value of n is an integer of at least 1.

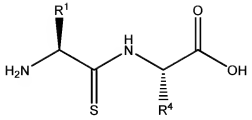
22. (Withdrawn) The drug conjugate of claim 19, wherein the spacer comprises $[-CH_2-O-CH_2-]_n$, wherein n is an integer of at least one.

23. (Previously Presented) The drug conjugate of claim 28, wherein R^1 comprises a side chain group of any amino acid residue.

24. (Previously Presented) The drug conjugate of claim 23, wherein the amino acid side chain group of R^1 is independently selected from a group consisting of (i) hydrogen (glycine); (ii) methyl (alanine); (iii) CH_2Ph (phenylalanine); (iv) $CHMe_2$ (valine); (v) CH_2OH (serine); (vi) CH_2SH (cysteine); (vii) CH_2CO_2H (aspartate); (viii) CH_2CONH_2 (asparagine); and (ix) $(CH_2)_4NH_2$ (lysine).

Claims 25-27. (Cancelled)

28. (Currently Amended) A drug conjugate comprising a drug molecule covalently bonded to a thiodipeptide, the thiodipeptide having the formula



wherein the drug molecule is covalently bonded to a functional group of R^4, and is selected from the group consisting of an antibiotic, an anticancer drug, an antihistamine, an antihypertensive, an anti-inflammatory, an antimalarial, an antiviral, a beta blocker, a bronchodilator, a cholesterol lowering agent, a Central Nervous System (CNS) drug, a sedative, and a steroid,

wherein R^4 is independently selected from a group consisting of:

an N-alkyl group;

an alkoxy group;

an alkyl chain attached to a functional group; and

a side chain group of an amino acid residue,

wherein R^1 is independently selected from a group consisting of:

a hydrogen;

a linear or branched alkyl group;

an alkyl chain attached to other functional groups; and

a side chain group of an amino acid residue.

29. (Withdrawn) A drug conjugate according to claim 28, wherein covalent attachment of the drug molecule to the thiopeptide is by means of an ester linkage, ether linkage or an amide linkage.

Claim 30. (Cancelled)

31. (Previously Presented) A drug conjugate according to claim 28, wherein the thiopeptide is capable of being released or detached from the drug molecule.

32. (Previously Presented) A drug conjugate according to claim 28, in the form of a medicament.

Claims 33-40. (Cancelled)

41. (Withdrawn) The drug conjugate of claim 28 wherein the drug is selected from the group consisting of oxazepam, lorazepam and temazepam.

42. (Previously Presented) The drug conjugate of claim 28 wherein the N-terminal residue of the thiodipeptide is an L-isomer.

43. (Previously Presented) The drug conjugate of claim 28 wherein the C-terminal residue of the thiodipeptide is an L-isomer.

44. (Previously Presented) The drug conjugate of claim 28 wherein the N- and C- terminal residues of the thiodipeptide are L-isomers.

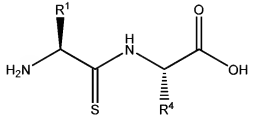
45. (Currently Amended) A drug conjugate comprising a drug molecule covalently bonded to a thiodipeptide, the thiodipeptide having an N-terminal and a C-terminal residue,

wherein the thiodipeptide comprises a carboxylic acid group at the C-terminal, [[and]]

wherein the drug molecule is attached as a side chain of the C-terminal residue, and

wherein the drug molecule is selected from the group consisting of an antibiotic, an anticancer drug, an antihistamine, an antihypertensive, an anti-inflammatory, an antimalarial, an antiviral, a beta blocker, a bronchodilator, a cholesterol lowering agent, a Central Nervous System (CNS) drug, a sedative, and a steroid.

46. (Currently Amended) A drug conjugate molecule, being a product of the reaction of a functional group of a thiodipeptide with a drug molecule, wherein the thiodipeptide has the formula:



in which R^4 comprises the functional group that reacts with the drug molecule to covalently attach the drug molecule to the thiodipeptide,

wherein R^4 is independently selected from a group consisting of:

an N-alkyl group;

an alkoxy group;

an alkyl chain attached to a functional group; and

a side chain group of an amino acid residue,

wherein R^1 is independently selected from a group consisting of:

a hydrogen;

a linear or branched alkyl group;

an alkyl chain attached to other functional groups; and

a side chain group of an amino acid residue, and

wherein the drug molecule is selected from the group consisting of an antibiotic, an anticancer drug, an antihistamine, an antihypertensive, an anti-inflammatory, an antimalarial, an antiviral, a beta blocker, a bronchodilator, a cholesterol lowering agent, a Central Nervous System (CNS) drug, a sedative, and a steroid.